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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/817,947	03/27/2001	Shigetsugu Muramatsu	78-01	9848

7590 07/30/2003

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EXAMINER

NORRIS, JEREMY C

ART UNIT PAPER NUMBER

2827

DATE MAILED: 07/30/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/817,947	MURAMATSU ET AL.	
	Examiner	Art Unit	
	Jeremy C. Norris	2827	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 January 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 2-4 and 6-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 7,9,11 and 13-19 is/are allowed.
- 6) ☒ Claim(s) 6,8,12 and 20 is/are rejected.
- 7) ☒ Claim(s) 2-4 and 10 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 May 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
 If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
 a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) <u>0403</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 6, 8, 12, and 20 are rejected under 35 U.S.C. 102(b) as being anticipated by US 5,199,879 (hereafter Kohn).

Kohn discloses, referring to figures 1&2, a substrate (13) for mounting an electronic part (11) or parts thereon comprising a core substrate (45) and at least a set of insulation layer (shown, not specifically referenced) and a patterned wiring line layer (41) which is formed on the insulation layer, said set of insulation layer and patterned wiring line layer being positioned at at least one of two opposed sides of the core substrate, the core substrate having holes (21'), in each of which a lead pin (23) of the electronic part is to be inserted, and said core substrate being provided with lands (49) which surround an opening of each of the holes and to which the lead pin inserted in the hole is to be bonded, wherein the insulation layer or insulation layers located at at least one side of the core substrate has bores (21''), having a diameter larger than the diameter of the holes so as to expose the land and communicate with the hole surrounded by the land at the bottom of the bores; wherein the holes, in which the lead pin of the electronic part is to be inserted, have a closed end at the side of the core substrate opposed to the side on which the electronic parts are to be mounted [claim 6], wherein the closed end

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is closed by the insulation layer on the core substrate [claim 8], further comprising a hole piercing through the core substrate and having an inside wall on which a conductor layer (95) is provided to connect a wiring line at one side of the core substrate to another wiring line at the opposed side [claim 12].

Moreover, Kohn discloses, referring to figures 1&2, a substrate (13) for mounting an electronic part (11) or parts thereon, comprising a core substrate (45) and at least a set of insulation layer (shown, not specifically referenced) and patterned wiring line layer (41), which is formed on the insulation layer, at opposed sides of the core substrate, the core substrate having holes (21'), in each of which a lead pin of the electronic part to be mounted is to be inserted, and being provided with lands (49) which surround an opening of the hole and to which the lead pin inserted in the hole is to be bonded, and holes having an inside wall on which a conductor layer (95) is formed, the conductor layer extending to a land provided on each of the sides of the core substrate in order to connect a wiring line at one side of the core substrate to another wiring line at the opposed side, wherein the insulation layer or layers have bores (21''), having a diameter larger than the diameter of the hole so as to expose the land at a bottom of the bore, said land surrounding the opening of the hole in which a lead pin of the electronic part is to be inserted such that said bore communicates with the hole, and the lands connected to the wiring lines are covered with the insulation layer [claim 20].

Response to Arguments

Applicant's arguments with respect to claims 6, 8, 12, and 20 have been considered but are moot in view of the new ground(s) of rejection.

Allowable Subject Matter

Claims 7, 9, 11, and 13-19 are allowed.

Claims 2-4 and 10 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeremy C. Norris whose telephone number is 703-306-

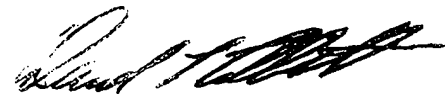
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5737. The examiner can normally be reached on Mon.-Th., 9AM - 6:30 PM and alt. Fri. 9AM-5:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David L. Talbott can be reached on 703-305-9883. The fax phone numbers for the organization where this application or proceeding is assigned are 703-308-0725 for regular communications and 703-308-0725 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0956.

JCSN
July 27, 2003



DAVID L. TALBOTT
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2800